



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/912,211

07/24/2001

Michael J. Chaloner

10004955-1

6430

7590

06/30/2005

HEWLETT-PACKARD COMPANY

Intellectual Property Administration

P.O. Box 272400

Fort Collin, CO 80527-2400

EXAMINER

BROWN, VERNAL U

ART UNIT

PAPER NUMBER

2635

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,211

Applicant(s)

CHALONER ET AL.

Examiner

Vernal U. Brown

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23,24,26-37,42 and 44-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-37,42,44-52 and 2324 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This action is responsive to amendment filed on April 8, 2005.

Response to Arguments

In view of the appeal brief filed on April 8, 2005, PROSECUTION IS HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Appellant's argument regarding the plurality of receivers on page 8 is mute in view of the new ground of rejection.

Appellant's argument regarding claim 33 and 42 have been fully considered but they are not persuasive.

Regarding Appellant's argument regarding claim 3, Bowers et al. teaches identify objects of a subset identify by the catalog number as shown in figure 8. The limitation of each of the subset having a different frequency is not claimed.

Art Unit: 2635

Regarding Appellant's argument regarding the electromagnetic shield as taught by Francis, Francis teaches the shield separates two rooms at the doorway (col. 3 lines 51-56) in order to eliminate extraneous sources and thereby improving accuracy.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-29, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 and further in view of Maloney US Patent 6204764.

Regarding claims 23 and 29, Bowers et al. teaches a container (32) comprising: object presence detection equipment (100) internal to said container (figure 6), said equipment comprising at least one transmitter (102) of transmitted signal energy and at least one receiver (104) of received signal energy (figure 3); a set of objects (22) for object presence detection internal to said container (col. 12 lines 62-67). Bowers et al. also teaches a container wall substantially surrounding the objects presence detection equipment (figure 6) and an object of the set of objects is operable to modify the transmitted signal energy of a selected frequency to

Art Unit: 2635

generate the received signal energy of the selected frequency by resonating at the resonant frequency of the tag (col. 8 lines 36-43, col. 8 lines 54-60). Bowers et al. is silent on teaching a linear arrangement of the items in the container (32) but teaches use of a linear arrangement of items 22 contained in a library (figure 9) which represent a standard arrangement of items in a storage area. Bowers et al. is however silent on teaching shielding the interior of the container from extraneous external signals and a plurality of receivers. Francis et al. in an art related object tracking system teaches the use of electromagnetic shielding to prevent reading of the by extraneous source (col. 9 lines 49-65) and is also silent on teaching a plurality of receivers. Maloney in an art related tracking system teaches the tracking of items added to or remove from a container (col. 9 lines 63-67). Maloney teaches a plurality of receptacle for holding items within the container and each of the receptacle within the container is associated with a receiver (63) and further providing a plurality of receivers within the container (col. 8 lines 5-20) for detecting the removal or placement of article from the container.

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals and to have a plurality of receivers in Bowers et al. as evidenced by Francis et al. in view of Maloney because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources. Maloney teaches providing a plurality of receivers within the container for detecting the removal or placement of article from the container.

Art Unit: 2635

Regarding claim 24, Bowers et al. teaches the set of objects comprises a tape cartridge (col. 6 lines 45-49).

Regarding claims 26, Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9).

Regarding claim 27, Bowers et al. teaches an enclosed area 10 having plurality of arrays of objects (20, 22) as shown in figure 1 and the interrogator (figure 3) having associated transmitters (102), receivers (104), analyzing circuitry (108) and processing equipment (26).

Regarding claim 28, Bowers et al. teaches the transmitted and said received signal energy is radio frequency (col. 8 lines 42-43).

Regarding claim 32, Bowers et al. teaches the transmitter and the receiver are combined into one transceiver (figure 3).

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S. Patent 5963134 in view of Francis et al. U.S. Patent 6600418 in view of Maloney US Patent 6204764 and further in view of Lastinger U.S. Patent 6104311.

Regarding claim 30, Bowers et al. in view of Francis et al. in view of Maloney teaches the tag having a resonant circuit (col. 8 lines 40-42) but is silent in teaching resonating is enhanced by variable resonant material by adjusting the length of the resonating material. Lastinger in an art related tag identification system teaches changing the resonating properties by adjusting the length of the resonating material (col. 8 lines 16-18).

It would have been obvious to one of ordinary skill in the art to enhanced the resonating capability of the tag by adjusting the length of the resonating material in Bowers et al. in view of Francis et al. in view of Maloney as evidenced by Lastinger because Bowers et al. in view of

Art Unit: 2635

Francis et al. in view of Maloney suggests the tag having a resonant circuit and Lastinger teaches changing the resonating properties by adjusting the length of the resonating material in order to change the resonant frequency.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 in view of Maloney US Patent 6204764 and further in view of Greene et al. U.S Patent 5581257.

Regarding claims 31 and 49, Bowers et al. in view of Francis et al. in view of Maloney teaches the tag resonating at a resonant frequency (col. 8 lines 40-42) but is silent in teaching the objects resonate at the same frequency. Greene et al. in an art related radio frequency identification system teaches radio frequency tags having the same resonant frequency (col. 6 lines 27-29) in order to provide the same information.

It would have been obvious to one of ordinary skill in the art for the objects to resonate at the same frequency in Bowers et al. in view of Francis et al. in view of Maloney as evidenced by Greene et al. because Bowers et al. in view of Francis et al. in view of Maloney suggests the tag resonating at a resonant frequency and adjusting controlling the resonant frequency and Greene et al. teaches radio frequency identification system teaches radio frequency tags having the same resonant frequency in order to provide the same information.

Claims 33-38, 42, 44-47, and 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418.

Regarding claims 33 and 38, Bowers et al. teaches a method for identifying a subset of objects within a set of objects in a container (col. 12 lines 50-65), said method comprising: transmitting a signal of a selected frequency within said container (col. 12 lines 63-65); modifying said transmitted signal at a selected frequency by at least one object of said set of objects by resonating at a frequency (col. 8 lines 36-43). Bowers et al. also teaches receiving said modified signal within the container; analyzing and processing said received signal (col. 12 line 62-col. 13 line 12) but is however silent on teaching shielding the interior of said container from extraneous external signals. Francis et al. in an art related object tracking system teaches the use of electromagnetic shielding to prevent reading of the by extraneous source (col. 9 lines 49-65).

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals in Bowers et al. as evidenced by Francis et al. because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources.

Regarding claims 34, and 39, Bowers et al. teaches the set of objects comprises a tape cartridge (col. 6 lines 45-49).

Regarding claim 35, Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9).

Regarding claims 36, 40, and 46 Bowers et al. teaches the transmitted and said received signal energy is radio frequency (col. 8 lines 42-43).

Regarding claims 37 and 47, Bowers teaches means for modifying comprises resonating at the selected frequency (col. 8 lines 36-43).

Regarding claim 42, Bowers et al. teaches a tape storage container (32) comprising: object presence detection equipment (100) internal to said container, said equipment comprising at least one transmitter (102) of transmitted signal energy and at least one receiver (104) of received signal energy (figure 3); a plurality of tape cartridges (22) (col. 6 lines 66-col. 7 line 5) for object presence detection internal to said container (col. 7 lines 32-40), such that a tape cartridge of said plurality of tape cartridges is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency (col. 8 lines 35-43). Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9). Bowers also teaches the outer body substantially surrounding said object presence detection equipment and said plurality of tape cartridges (figure 6) but is silent on teaching metallic outer body operable to shield said equipment and said tape cartridges from extraneous external signals. Francis et al. in an art related object tracking system teaches the use of electromagnetic shielding to prevent reading of the by extraneous source (col. 9 lines 49-65).

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals in Bowers et al. as evidenced by Francis et al. because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding (metallic) to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources.

Regarding claim 43-44, Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9).

Art Unit: 2635

Regarding claim 45, Bowers et al. teaches an enclosed area 10 having plurality of arrays of objects (20, 22) as shown in figure 1 and the interrogator (figure 3) having associated transmitters (102), receivers (104), analyzing circuitry (108) and processing equipment (26).

Regarding claim 51, Bowers et al. teaches producing a report based on the analysis of the content of the container (col. 14 lines 4-10) and the report shows the number of members in a subset as shown in figure 7, the subset is based on the location of the items.

Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S. Patent 5963134 in view of Francis et al. U.S. Patent 6600418 and further in view of Lastinger U.S. Patent 6104311.

Regarding claim 48, Bowers et al. in view of Francis et al. teaches the tag having a resonant circuit (col. 8 lines 40-42) but is silent in teaching resonating is enhanced by variable resonant material by adjusting the length of the resonating material. Lastinger in an art related tag identification system teaches changing the resonating properties by adjusting the length of the resonating material (col. 8 lines 16-18).

It would have been obvious to one of ordinary skill in the art to enhanced the resonating capability of the tag by adjusting the length of the resonating material in Bowers et al. in view of Francis et al. as evidenced by Lastinger because Bowers et al. in view of Francis et al. in view of Maloney suggests the tag having a resonant circuit and Lastinger teaches changing the resonating properties by adjusting the length of the resonating material in order to change the resonant frequency.

Art Unit: 2635

Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S. Patent 5963134 in view of Francis et al. U.S. Patent 6600418 and further in view of Greene et al. U.S. Patent 5581257.

Regarding claim 49, Bowers et al. in view of Francis et al. teaches the tag resonating at a resonant frequency (col. 8 lines 40-42) but is silent in teaching the objects resonate at the same frequency. Greene et al. in an art related radio frequency identification system teaches radio frequency tags having the same resonant frequency (col. 6 lines 27-29) in order to provide the same information.

It would have been obvious to one of ordinary skill in the art for the objects to resonate at the same frequency in Bowers et al. in view of Francis et al. as evidenced by Greene et al. because Bowers et al. in view of Francis et al. in view of Maloney suggests the tag resonating at a resonant frequency and adjusting controlling the resonant frequency and Greene et al. teaches radio frequency identification system teaches radio frequency tags having the same resonant frequency in order to provide the same information.

Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S. Patent 5963134 in view of Francis et al. U.S. Patent 6600418 in view of Maloney US Patent 6204764 and further in view of Chieu et al. U.S. Patent 5995019.

Regarding claim 52, Bowers et al. in view of Francis et al. teaches grouping the objects in subset based on the item appropriate location but is silent on teaching each subset is responsive to a different selected frequency. Chieu et al. in an art related method for communicating with RF transponders teaches grouping of tags based on the attribute of the signal sent from the base

Art Unit: 2635

station to the tag. (col.12 lines 3-10) and one skilled in the art recognizes that frequency of a signal is considered its attribute.

It would have been obvious to one of ordinary skill in the art for each subset to be responsive to a different selected frequency in Bowers et al. in view of Francis et al. as evidenced by Chieu et al. because Bowers et al. in view of Francis et al. in view of suggests grouping the objects in subset based on the item appropriate location and Chieu et al. teaches grouping of tags based on the attribute of the signal sent from the base station to the tag in order to isolate a group of tag and one skilled in the art recognizes that frequency of a signal is considered its attribute.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vernal U. Brown whose telephone number is 571-272-3060. The examiner can normally be reached on 8:30-7:00 Monday-Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 571-272-3068. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2635

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vernal Brown
June 23, 2005



BRIAN ZIMMERMAN
PRIMARY EXAMINER